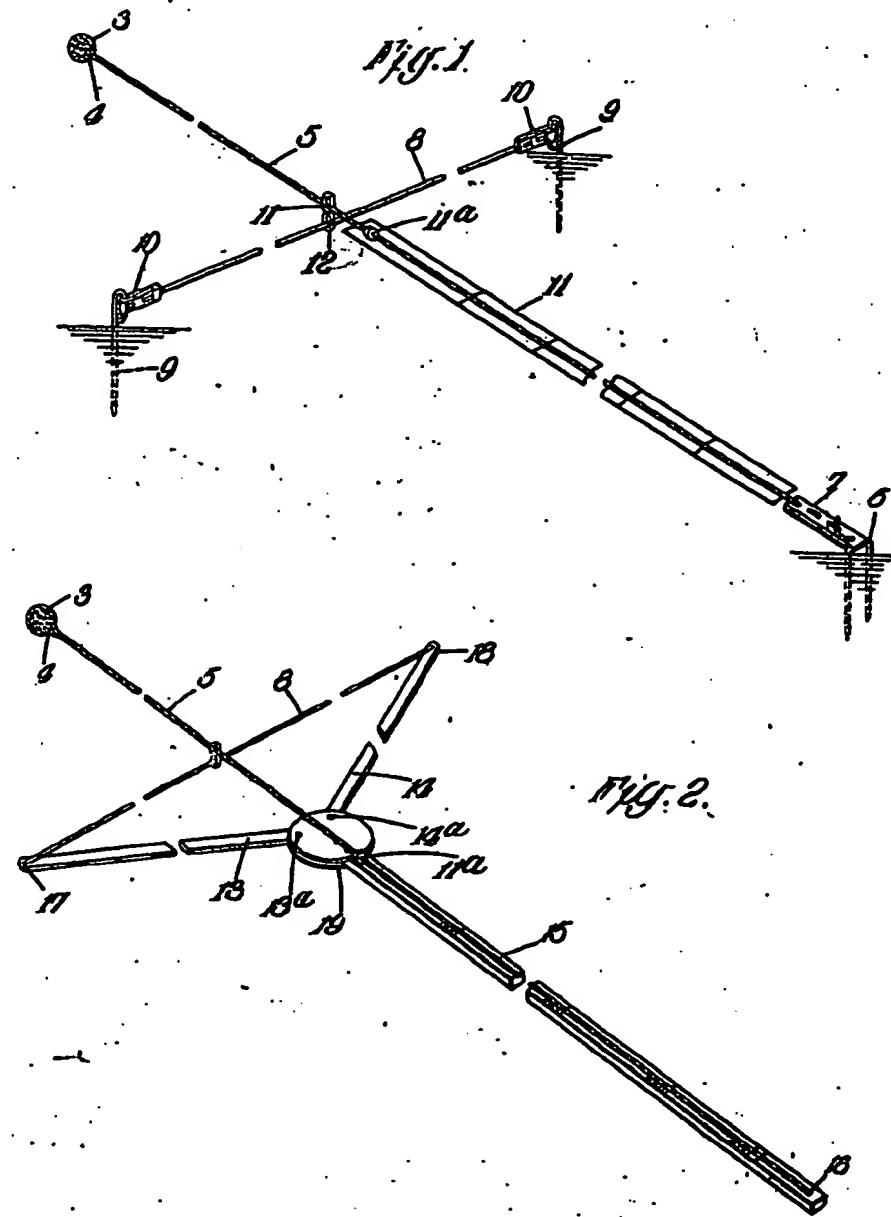


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**PATENT SPECIFICATION**



Application Date: April 1, 1933. No. 9883 / 33. **401,955**

Complete Left: July 18, 1933.

Complete Accepted: Nov. 23, 1933.

**PROVISIONAL SPECIFICATION.**

**Improvements in or relating to Appliances for use in Practising or Playing Games.**

We, HARRY CUTHBERT DRANE, Engineer, of 4, Holders Hill Road, Hendon, London, N.W.4, and JAMES HENRY NADEN, Engineer, of 12, Heath Hurst Road, Hampstead, London, N.W.3, both subjects of the King of Great Britain, do hereby declare the nature of this invention to be as follows:-

This invention relates to appliances for use in practising or playing games. Several forms of golf practising appliances are known and in one of these prior arrangements a golf ball was connected by a length of cord or the like to a length of rubber the latter being for the purpose of returning the ball to the player after the ball had been struck. This prior proposal is not, however, a satisfactory arrangement since there is a possibility on rebound of the ball of the latter striking the player.

It is the chief object of the present invention to provide an improved appliance with a view to overcoming this disadvantage.

According to the invention a golf or equivalent ball is attached to a length of inelastic material such as cord or string and a controlling device is provided so disposed as to return the ball to the player but not to a position beyond that from which the ball was hit. The end of the inelastic material remote from the ball is adapted to be anchored. The controlling device preferably comprises a length of elastic material such as rubber connected to and extending transversely or in a similar position relatively to the inelastic material and disposed intermediate the ball and the anchored end of the inelastic material. In the operation of the improved appliance the ball is hit in the direction of the anchored end of the inelastic material with the result that some proportion of the inertia of the struck ball is dissipated in lifting the inelastic material (which normally lies along the ground) and when the ball passes the point of connection of the inelastic material to the elastic material the remaining inertia of the ball is expended in tensioning the elastic material which serves to return the ball to its original position. It will be appreciated that the ball cannot be returned beyond the position from which it was struck since as it is connected to the inelastic material it cannot move beyond the point determined by the length of the said inelastic material. In one form of the invention we provide a length of cord one end of which may be connected to a prong or stake that can be pushed or driven into the ground whilst the other end is connected to a golf ball. Intermediate the ends of the cord a rubber strand may be arranged transversely to the aforesaid cord and having a loop preferably of metal through which the aforesaid cord can extend. Each end of the rubber strand may be provided with stakes which can also be pushed or driven into the ground. The rubber strand when in position may be pulled taut preferably due to the provision of means for adjusting the rubber strand between the stakes. As aforesaid the cord and the rubber strand are arranged at right angles to one another the point of connection of the rubber to the cord being preferably disposed nearer to the ball than the anchored end of the cord. The position to which the ball is returned after being struck indicates whether the ball has been cleanly hit or whether it has been "sliced," "pulled" or "fooled." Instead of staking the ends of the rubber strand and the end of the cord these ends may be attached to weights to enable the appliance to be used where it is not possible to use stakes. In order securely to attach the ends of the rubber to the stakes or weights whilst at the same time to permit the length of the rubber strand to be varied it is preferred to employ a piece or strip of leather or similar material which can be looped around the stake or around a projection on the weights, the ends of the rubber being threaded through for example four holes disposed in the contacting ends of the leather strip or the like. This arrangement provides a secure attachment for the rubber whilst at the same time permitting ready adjustment thereof. If desired the end of the cord which is

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to each other. The arms 13, 14 and 15 are mounted between a pair of plates 19 and the arms 13 and 14 are pivoted on pins 13<sup>a</sup> and 14<sup>a</sup> so as to be capable of 5 being rotated relatively to the plates 19 so as to permit the two arms 13 and 14 to lie against the arm 15 to enable the frame to occupy a minimum amount of space when not required for use and preferably to enable it to be packed in a golf bag. In the example shown, the arm 15 is calibrated and the cord 5 is associated with a bead or ball 11<sup>a</sup> for indicating the length of drive.

15 Although the invention has been described above as applied to a golf practising appliance it is to be understood that the invention may be applied to games or to other practising appliances such as 20 those employed for practising tennis.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we 25 claim is—

1. An appliance for practising or playing games comprising a golf or equivalent ball attached to one end of a length of flexible inelastic material such as cord 30 or string the other end of which in use is anchored to a fixed point an elastic controlling device being provided which is adapted to return the ball to a player but not to a position beyond that determined by the effective length of the 35 inelastic material.
2. An appliance for practising or playing games as in claim 1, wherein the elastic controlling device comprises a length of elastic material such as rubber, connected to and extending transversely to the inelastic material and disposed intermediate the ends of the inelastic material.
- 45 3. A golf practising appliance comprising a golf ball attached at one end to a length of flexible inelastic material such as cord, means for anchoring the other end of the inelastic material to a fixed point, an elastic controlling device for attachment to and being adapted to extend transversely of the inelastic material substantially midway of the ends of the inelastic material and means for 50 anchoring the ends of the elastic controlling device, the arrangement being such that the controlling device returns the ball to the player but not to a position determined by the length of the inelastic material.
- 55 60 4. An appliance for practising or playing games as in claim 2 or 3, wherein the elastic controlling device and the in-

elastic material are connected together in such manner as to permit the inelastic material to move along the length of the controlling device.

5. An appliance for practising or playing games as in claim 2, 3 or 4, wherein the elastic controlling device and inelastic material are connected together by a device comprising a pair of loops, one of which surrounds the elastic controlling device and the other the inelastic material.

6. An appliance for practising or playing games as in any of claims 1 or 2 or 4 or 5, wherein means are provided for anchoring the end of the inelastic material remote from the ball and for anchoring also the ends of the elastic controlling device.

7. An appliance for practising or playing games as in any of the preceding claims 2 to 6, wherein pegs or stakes or weights are employed for anchoring purposes, the ends of the elastic controlling device and/or the anchored end of the length of inelastic material being threaded through strips of material which are looped around the pegs or stakes for the purpose specified.

8. An appliance for practising or playing games as in any of the preceding claims 1 to 5, which is carried by a frame.

9. An appliance for practising or playing games as in claim 8, wherein the frame comprises three arms between two of which the elastic controlling device is disposed, the length of inelastic material being anchored to the remote end of the other arm.

10. An appliance for practising or playing games as in claim 9, wherein the said frame is collapsible.

11. An appliance for practising or playing games as in any of the preceding claims, wherein means are provided for indicating the apparent length of drive.

12. An appliance for practising or playing games as in claim 10, wherein the same means comprises a member such as a bead slidably arranged on the inelastic material relatively to a suitably disposed scale.

13. A golf practising appliance substantially as described or as shown in the accompanying drawings.

Dated this 18th day of July, 1933.  
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elastic material. Consequently when the ball is hit with the inelastic material in a taut condition there is no possibility of the ball on rebound returning to a position beyond that from which it was hit thus eliminating the danger of the ball on the rebound striking the player. The inelastic material and the elastic controlling device may be connected together by a device having a pair of loops through one of which the said cord passes and through the other of which the controlling device passes. Means are preferably provided with a view to indicating the apparent length of drive. Stakes or pegs or weights may be provided for anchoring the appliance in position or alternatively the appliance may be associated with a frame which is preferably collapsible and which can be supported for example on the floor of a room.

In order that the said invention may be clearly understood and readily carried into effect the same will now be more fully described with reference to the accompanying drawings, in which:

Figure 1 is a perspective view of one form of the invention for use as a golf practising appliance; and

Figure 2 is a further form of the invention;

In Figure 1 the reference numeral 3 indicates a golf ball having a staple 4 to which is attached a length of inelastic material 5 such as cord or string. The end of the inelastic material 5 remote from the ball 3 is adapted to be anchored to the ground for which purpose a stake 6 is provided. The stake 6 has a piece or strip of leather or similar material 7 which is looped around the stake 6 the end of the cord 5 being threaded as shown through four holes disposed in the contacting ends of the leather strip 7. This arrangement provides a secure attachment for the end of the cord 5 whilst at the same time permitting the active length of the cord to be varied according to requirements. The elastic controlling device as shown comprises a length of elastic material 8 such as rubber connected to and extending transversely to the cord 5 and disposed intermediate the ball 3 and the anchored end of the cord. The ends of the elastic material 8 are anchored by means of stakes 9 each stake being provided with a piece or strip of leather or similar material 10. The free ends of the elastic material 8 are threaded through holes in the strips 10 to enable the active length of elastic material 8 to be varied and to provide a secure connection between the ends of the elastic material and the stakes 9. The elastic material 8 is connected to

the cord 5 by means of a device comprising a loop 11 surrounding the elastic material 8 and another loop 12 arranged at right angles to the loop 11 and surrounding the cord 5 the arrangement being such that the cord 5 can move along the elastic material 8.

In the operation of the improved appliance the ball 3 is hit in the direction of the anchored end of the cord 5 with the result that some proportion of the inertia of the struck ball is dissipated in lifting the cord 5 (which normally is taut and lies along the ground) and when the ball passes the point of connection of the cord 5 to the elastic material 8 the remaining inertia of the ball is expended in tensioning the elastic material 8 which serves to return the ball to its original position. It will be appreciated that the ball cannot be returned beyond the position determined by the effective length of the said cord 5; thus assuming that the ball is hit from the position in which the cord 5 is taut as shown in Figure 1 the ball cannot return to a position beyond that from which it was hit thereby eliminating the possibility of the ball in its return striking the player. The position to which the ball is returned after being struck indicates whether the ball has been cleanly hit or whether it has been "sliced," "pulled" or "foozled." If desired the appliance may be associated with means for indicating the apparent length of drive. For this purpose a strip of flexible material such as tape 11 may be arranged to lie beneath the cord 5 between elastic material 8 and the stake 6. The tape 11 is graduated as shown and a slidably arranged bead or ball 11<sup>a</sup> is arranged on the cord 5. When the ball is struck the cord 5 is lifted and the bead 11<sup>a</sup> travels along the cord to an extent depending on the force of drive.

Instead of staking the ends of the elastic material 8 and the end of the cord 5 these ends may be attached to weights to enable the appliance to be used where it is not possible to drive in stakes.

Instead of using stakes or weights as aforesaid the cord and the rubber strip 8 may be connected to a wooden frame or a frame made of other suitable material; such an arrangement is disclosed in Figure 2. The frame as shown comprises three arms 13, 14 and 15. The cord 5 is attached to the end of the arm 15 at the point 16 and the length of rubber or the like 8 is connected between the two arms 13 and 14 at the points 17 and 18 respectively. The cord 5 as shown lies along the length of the arm 15 the three arms being arranged at 120° relatively

secured to the ball may likewise be provided with such a construction of attachment. It will of course be appreciated that the ball may be provided with a 5 staple or other suitable device to which a leather strip or the like can be connected. If desired, instead of utilizing stakes or weights as aforesaid the cord and the rubber may be connected to a 10 wooden frame or a frame made of other suitable material. For example, the frame may comprise three arms to the end of one of which one end of the cord may be connected whilst to the ends of 15 the other two arms the ends of the length of elastic material may be connected. The cord is preferably arranged to lie along the length of one of the said arms the other two arms being disposed at 20 such angles to the aforesaid arm that the elastic material is arranged at right angles to the cord but out of contact with the said arms to which it is connected. For example, the three arms may be 25 arranged at  $120^{\circ}$  relatively to each other. The arms of the said frame are preferably hinged or otherwise suitably connected together to enable the frame to occupy a minimum amount of space when not 30 required for use and preferably to enable it to be packed in a golf bag.

If desired, in order to indicate the length of drive a measuring device may be employed; for example, the arm along which the said cord lies may be calibrated and a bead or ball may be threaded on to the cord which slides along the cord when the ball is struck the position of the bead or ball relatively to the calibrations on the said arms serving to indicate the 35 length of drive. 40

The metal loop aforesaid which is adapted to connect the length of cord to the elastic material preferably comprises a pair of loops arranged in planes at right angles to one another the loop through which the elastic material is adapted to pass preferably being somewhat elongated. 45

Although the invention has been described above as applied to a golf practising appliance it is to be understood that the invention may be applied to games or to other practising appliances such as those employed for practising tennis. 50

Dated this 1st day of April, 1933.  
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Agents for the Applicants.

#### COMPLETE SPECIFICATION.

#### Improvements in or relating to Appliances for use in Practising or Playing Games.

We, HARRY CUTHERBERT DRANE, Engineer, of 4, Holders Hill Road, Hendon, London, N.W.4, and JAMES HENRY NADEN, Engineer, of 12, Heath Hurst Road, Hampstead, London, N.W.3, both subjects of the King of Great Britain, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:

This invention relates to appliances for use in practising or playing games. Several forms of golf practising appliances are known and in one of these prior arrangements a golf ball was connected by a length of cord or the like to a length of rubber the latter being for the purpose of returning the ball to the player after the ball had been struck. This prior proposal is not, however, a satisfactory arrangement since there is a possibility on rebound of the ball of the latter striking the player.

It is the chief object of the present invention to provide an improved

appliance with a view to overcoming this disadvantage.

According to the invention the appliance comprises a golf or equivalent ball attached to one end of a length of flexible inelastic material such as cord or string the other end of which in use is anchored to a fixed point an elastic controlling device being provided which is adapted to return the ball to a player but not to a position beyond that determined by the effective length of the inelastic material. The controlling device preferably comprises a length of rubber connected and extending transversely to the inelastic material and disposed intermediate the ball and the anchored end of the inelastic material the ends of the length of rubber also being anchored in use. When using the appliance the flexible inelastic material is taut and lies along the ground and when the ball is hit the elastic controlling device is tensioned and serves to return the ball to the player but not to a position beyond that determined by the length of the in-